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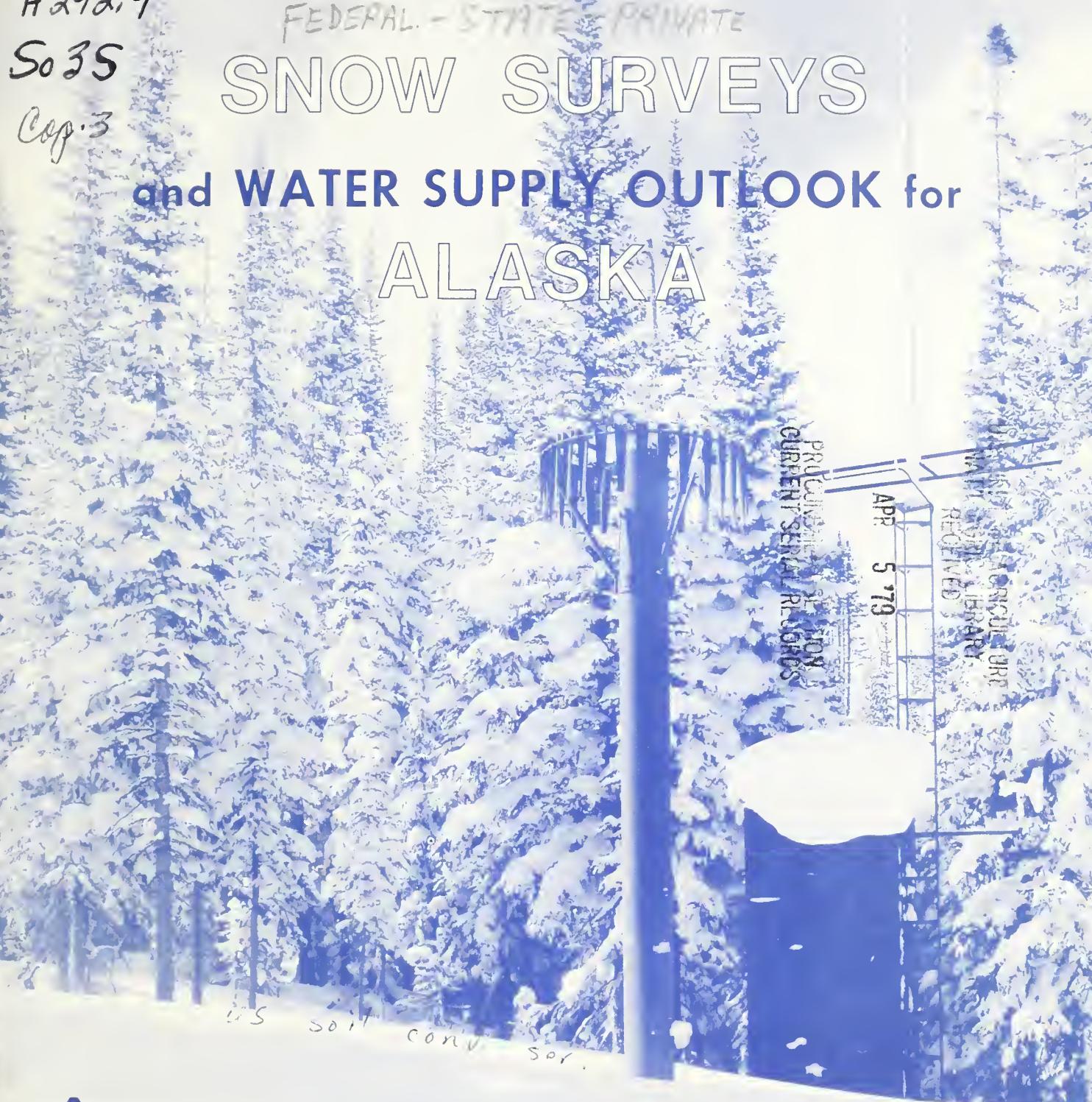
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FEDERAL - STATE - PRIVATE

SNOW SURVEYS

and WATER SUPPLY OUTLOOK for
ALASKA



SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

ALASKA SOIL CONSERVATION DISTRICT

AS OF
FEB. 1, 1979

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: VIEW OF A SNOWTEL DATA SITE IN THE SNOWY RANGE IN WYOMING. TALL CYLINDRICAL DEVICE IS A PRECIPITATION GAGE. SNOW PILLOWS ON THE GROUND NOT VISIBLE DUE TO SNOW COVER. SHELTER HOUSE, ANTENNA TOWER, ANTENNA, AND TEMPERATURE UNIT ARE VISIBLE BEHIND THE PRECIPITATION GAGE.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



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FEDERAL - STATE - PRIVATE
SNOW SURVEYS
AND
WATER SUPPLY OUTLOOK
FOR
ALASKA

Issued by

R. M. DAVIS

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

Released by

WEYMETH E. LONG

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
ANCHORAGE, ALASKA

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2221 EAST NORTHLIGHTS BLVD., RM. 129
ANCHORAGE, ALASKA 99504



CHANDALAR LAKE SNOW COURSE AND LOCAL TRANSPORTATION
ALASKA SUMMARY
as of
FEBRUARY 1, 1979

The snowpack in South Central Alaska and the Tanana drainage is generally quite heavy, especially the lower Susitna Valley which is 50 percent above normal.

Very little data is available for the rest of the state.

CHENA DRAINAGE

Snow courses north of the Chena River are slightly below normal, the only indication of a below-normal snowpack between Alaska's Gulf Coast and the Yukon River. Courses south of the river, however, are above average.

UPPER TANANA DRAINAGE

The snowpack here is well above average and the heaviest in the last four years.

LOWER SUSITNA DRAINAGE

Snow in the Susitna Valley is 50 percent above average and better than double last year's amount for February 1st.

UPPER COOK INLET

The Ship Creek drainage near Anchorage is approximately 30 percent above average and two to three times heavier than a year ago.

KENAI PENINSULA

Courses along the Seward highway indicate a snowpack approximately 25 percent above average. The hills in back of Homer, meanwhile, are more like 50 percent above average. This is way ahead of last year's snowpack.

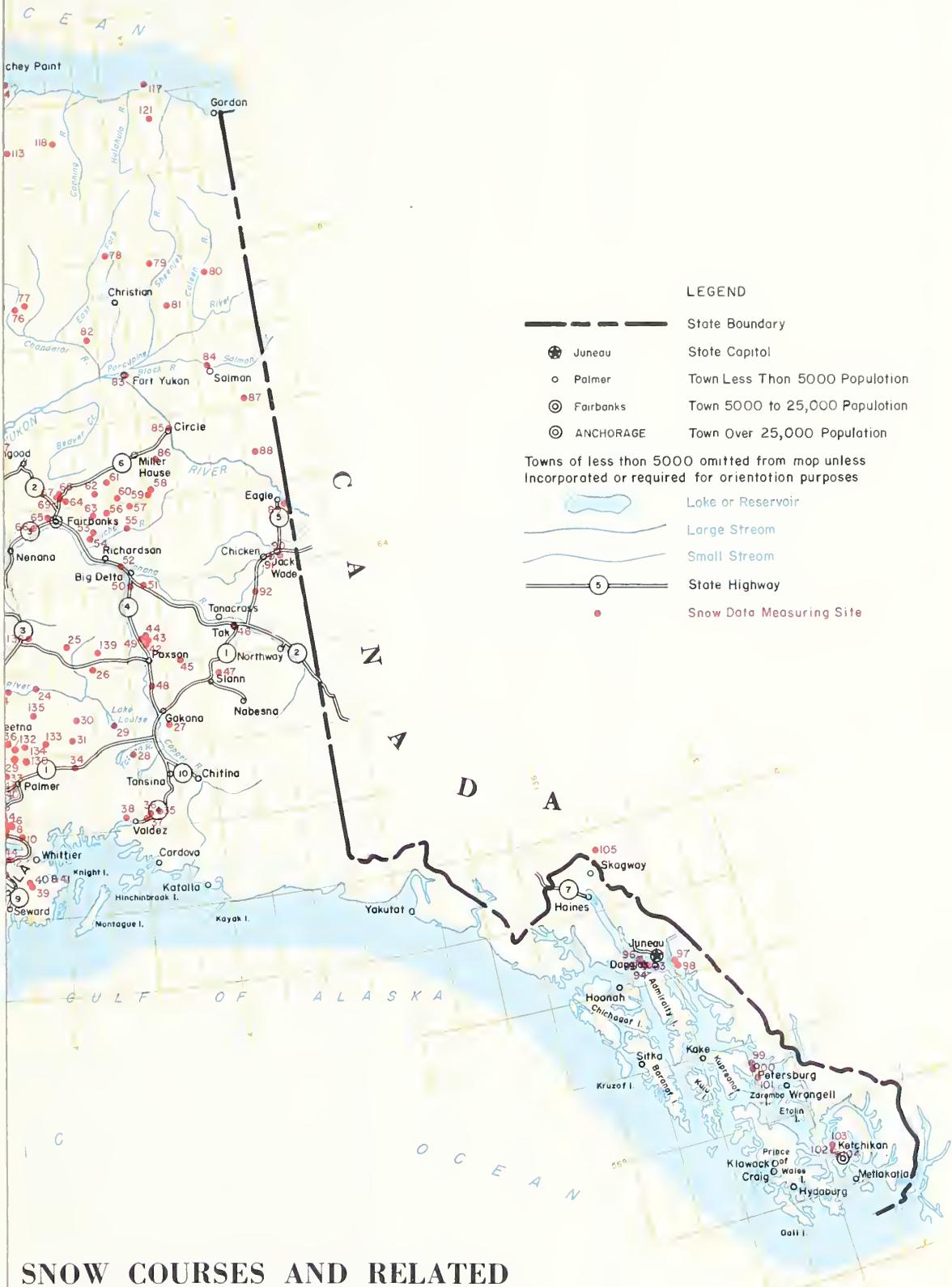
SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD		
NAME	Number	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Average +	Years of Previous Record
<u>SOUTHEAST:</u>								
Cropley Lake	94	1650	N O	S U R V E Y	15.8	---	1	
Eagle Crest	95	1000	N O	S U R V E Y	11.7	---	---	
Fish Creek	96	500	N O	S U R V E Y	6.2	---	---	
Harriet Top	102	2000	N O	S U R V E Y	---	37.2	4	
Hunt Saddle	103	1500	1/30	75	19.2	---	29.4	4
Lake Shore	104	660	1/30	58	15.4	---	16.2	4
Petersburg	99	550	1/30	53	12.0	---	---	---
<u>KOYUKUK:</u>								
Coldfoot	109	1000	N O	S U R V E Y	5.8	---	2	
Dietrich River	110	1550	N O	S U R V E Y	3.1	---	2	
Five Mile Camp	106	400	N O	S U R V E Y	3.1	---	2	
Prospect Creek	108	980	N O	S U R V E Y	4.7	5.4	3	
Table Mountain	111	2200	N O	S U R V E Y	4.5	4.0	3	
Thirty Mile	107	1300	N O	S U R V E Y	5.2	5.6	3	
<u>WYOMING PRECIPITATION GAGES</u>			INCREMENT SINCE LAST READING			ACCUMULATIVE TOTAL		
<u>KOYUKUK:</u>			DATE					
Atigun Pass	123	4900	10/7 12/12	I N I T I A L 2.2		R E A D I N G 2.2		
Chandalar Shelf	122	3400	10/6 12/6	I N I T I A L 3.5		R E A D I N G 3.5		
<u>NORTH SLOPE:</u>								
Barrow	115	15	10/1 11/1 12/3 2/1	I N I T I A L 0.7 0.8 1.2		R E A D I N G 0.7 1.5 2.7		
Barter Island	117	15	8/25 11/29	I N I T I A L 2.9		R E A D I N G 2.9		
Jago River	121	550	8/25	I N I T I A L		R E A D I N G		
Kavik River	118	200	8/24	I N I T I A L		R E A D I N G		
Meade River	116	200	10/1 11/1 2/10	I N I T I A L 1.0 0.4		R E A D I N G 1.0 1.4		
Prudhoe Bay	114	30	9/26 10/27 12/5 1/3 2/1	I N I T I A L 1.0 1.0 0.5 0.5		R E A D I N G 1.0 2.0 2.5 3.0		
Sagwon	113	1000	10/7 12/12	I N I T I A L 0.8		R E A D I N G 0.8		
Toolik River	112	3100	10/7 12/12	I N I T I A L 0.7		R E A D I N G 0.7		
<u>SEWARD PENINSULA:</u>								
Candle	119	20	8/24	I N I T I A L		R E A D I N G		

a - aerial marker reading

e - estimated

+ For period of record.



SNOW COURSES AND RELATED DATA MEASURING SITES

ALASKA

1979

ALBERS EQUAL AREA PROJECTION

INDEX OF ALASKA SNOW COURSES

MAP NO.	COURSE NAME	COURSE NO. *	ELEV.	LAT.	LONG.	MEAS. DATES *	MEAS. BY *	MAP NO.	COURSE NAME	COURSE NO. *	ELEV.	LAT.	LONG.	MEAS. DATES *	MEAS. BY *
1	Arctic Valley #1	49MM1	500	61°13'N	149°40'W	2,3,4,5	c	76	Chandalar Lake	48SS1A	2040	67°30'N	148°30'W	3,4	a
2	Arctic Valley #2	49MM2	1000	61°13'N	149°37'W	2,3,4,5	c	77	Squaw Lake	48SS2a	2150	67°33'N	148°15'W	3,4	a
3	Arctic Valley #3	49MM3	2030	61°14'N	149°35'W	2,3,4,5	c	78	Arctic Village	45TT1A	2300	68°05'N	145°35'W	3,4	a
4	Arctic Valley #4	49MM4	2330	61°14'N	149°33'W	2,3,4,5	c	79	Koness Lake	44SS1A	1790	67°55'N	144°08'W	3,4	a
5	Arctic Ski Bowl	49MM5	3000	61°15'N	149°31'W	2,3,4,5	c	80	Coleen River	42SS1A	1100	67°44'N	142°28'W	3,4,7	a
6	Ship Creek	49MM7MPS	1750	61°08'N	149°28'W	2,3,4,5	a	81	Vundik Lake	43SS1a	950	67°23'N	143°45'W	3,4	a
7	Indian Pass	49MM8A	2350	61°05'N	149°29'W	2,3,4,5	a	82	Venetie	46SS1A	610	67°03'N	146°25'W	3,4,7	a
8	Bird Creek	49MM6A	2350	61°06'N	149°20'W	2,3,4,5,7	a	83	Fort Yukon	45RR1AM	430	66°35'N	145°15'W	3,4,7	a
9	South Campbell Creek	49MM11	1200	61°08'N	149°42'W	2,3,4,5	a	84	Black River	42RR1A	650	66°36'N	142°45'W	3,4,7	a
10	Mt. Alyeska	49LL15S	1200	60°57'N	149°05'W	2,3,4,5	a,b	85	Circle City	44QQ3A	600	65°50'N	144°05'W	3,4,7	a
11	Bertha Creek	49LL2	850	60°45'N	149°51'W	2,3,4,5	a	86	Circle Hot Springs	44QQ5	860	65°29'N	144°39'W	3,4	a
12	Kenai Summit	49LL3	1390	60°40'N	149°28'W	2,3,4,5	a	87	Dempsey Creek	41RR2A	950	66°06'N	141°48'W	3,4	a
13	Moose Pasa	49LL4	700	60°31'N	149°30'W	2,3,4,5	a	88	Nation River	41Q01a	3050	65°25'N	141°40'W	3,4	a
14	Jean Lake	50LL1	620	60°31'N	150°11'W	2,3,4,5	a	89	Eagle Village	41PP1A	900	64°08'N	141°08'W	3,4,7	a
15	Bridge Creek (UP)	51KK1	1300	59°42'N	151°28'W	3,4,5	a	90	Boundary	41PP3A	3300	64°05'N	141°27'W	3,4	a
16	Bridge Creek (LO)	51KK2	1100	59°40'N	151°32'W	3,4,5	a	91	Chicken Airstrip	41PP2A	1650	64°05'N	141°45'W	3,4,7	a
17	McArthur	52LL1A	120	61°00'N	152°00'W	2,3,4,5	a,c	92	Mt. Fairplay	42001a	3100	63°42'N	142°17'W	3,4,5	a
18	Alexander Lake	50MM1A	200	61°45'N	150°54'W	2,3,4,5	a,c	93	Douglas Ski Bowl	34JJ1	1640	58°16'N	134°27'W	3,4,5	b
19	Skwentna	51MM1A	160	61°58'N	151°12'W	2,3,4,5	a,c	94	Cropley Lake	34JJ2	1650	58°16'N	134°31'W	1,2,3,4	b
20	Chelatna Lake	51NN1a	1650	62°31'N	151°29'W	2,3,4,5	a,c	95	Eagle Crest	34JJ3	1000	58°17'N	134°32'W	1,2,3,4	b
21	Peters Hills	50NN1a	2010	62°31'N	150°57'W	2,3,4,5	a,c	96	Fish Creek	34JJ4	500	58°19'N	134°33'W	1,2,3,4	b
22	Talkeetna	50NN2	350	62°18'N	150°05'W	2,3,4,5	a,c	97	Upper Long Lake	33JJ2aS	1000	58°11'N	133°53'W	3,4,5,6,7	e
23	Sald Mtn. Lake	49NN1A	2150	62°15'N	149°45'W	2,3,4,5	a,c	98	Speel River	33JJ3A	280	58°09'N	133°43'W	3,4,5,6,7	e
24	Fog Lakes	48NN2A	2250	62°47'N	148°29'W	2,3,4,5	a,c	99	Petersburg Reservoir	32HH1	550	56°47'N	132°56'W	2,3,4,5	b
25	Monahan Flat	47001A	2710	63°18'N	147°39'W	2,3,4,5	a,c	100	Mitkof Island	32HH2	1050	56°46'N	132°56'W	2,3,4,5	b
26	Clearwater Lake	46NN1A	3100	62°59'N	146°58'W	2,3,4,5	a,c	101	Crystal Lake	32HH3	1375	56°36'N	132°50'W	2,3,4,5	b
27	Sanford River	45NN2A	2280	62°13'N	145°04'W	2,3,4,5	a,c	102	Harriet Top	31CC1	2000	55°29'N	131°37'W	3,4,5	b
28	St. Anne's Lake	46MM1A	1990	61°53'N	146°03'W	2,3,4,5	a,c	103	Hunt Saddle	31CC2	1500	55°30'N	131°37'W	3,4,5	b
29	Lake Louise	46NN2A	2400	62°17'N	146°30'W	2,3,4,5	a,c	104	Lake Shore	31CC3	660	55°29'N	131°36'W	3,4,5	b
30	Oshetna Lake	47NN1A	2950	62°23'N	147°29'W	2,3,4,5	a,c	105	Log Cabin (B.C.)	34KK1	2880	59°45'N	134°58'W	3,4,5	e
31	Little Nelchina	47NN2a	4160	62°07'N	147°36'W	2,3,4,5	a,c	106	Five Mile Camp	49RR1	400	65°55'N	149°48'W	2,3,4,5	i
32	Willow Airstrip	50MM2	150	61°45'N	150°03'W	2,3,4,5	a,c	107	Thirty Mile	50RR2a	1300	66°13'N	150°15'W	2,3,4,5	i
33	Independence Mine	49MM10	3300	61°45'N	149°25'W	3,4,5	a	108	Prospect Creek	50RR1	980	66°47'N	150°45'W	2,3,4,5	i
34	Sheep Mountain	47MM2	2900	61°47'N	147°30'W	3,4,5	a	109	Cold Foot Camp	50SS1	1000	67°16'N	150°10'W	1,2,3,4	i
35	Tsaina River	45MM4	1500	61°12'N	145°30'W	3,4,5	a	110	Dietrich Camp	49SS1A	1550	67°42'N	149°45'W	2,3,4,5	i
36	Worthington Glacier	45MM2	2400	61°10'N	145°45'W	3,4,5	a	111	Table Mountain	49SS3a	2200	67°58'N	149°45'W	2,3,4,5	i
37	Lowe River	45MM3	550	61°06'N	145°50'W	3,4,5	a	112	Toolik River	49TT1	3100	68°37'N	149°26'W	7	d
38	Valdez	46MM2	50	61°08'N	146°20'W	2,3,4,5	a	113	Sagwon	48UU1	1000	69°26'N	148°34'W	7	d
39	Wolverine Glacier (A)	48LL1	2130	60°23'N	148°54'W	1,2,4,5,6,7	8	114	Prudhoe Bay	48VV1	30	70°15'N	148°30'W	7	h
40	Wolverine Glacier (B)	48LL2	3610	60°25'N	148°55'W	2,3,4,5,6,7	8	115	Barrow	56WW1	15	71°20'N	156°40'W	7	h
41	Wolverine Glacier C	48LL3	4430	60°25'N	148°55'W	1,2,4,6,7	8	116	Meade River	57VV1	200	70°29'N	157°25'W	7	h
42	Culkana Glacier A	45006	4590	63°15'N	145°29'W	2,3,4,5,6,7	g	117	Barter Island	43VV1	15	70°08'N	143°37'W	7	h
43	Culkana Glacier B	45007	5480	63°17'N	145°26'W	2,3,4,5,6,7	g	118	Kavik River	47UU1	200	69°30'N	147°00'W	7	h
44	Culkana Glacier C	45008	6360	63°19'N	145°29'W	5,6,7	g	119	Candle	61QQ1	20	66°55'N	161°56'W	3,4	a,f
45	Mankomen Lake	44NN1	3050	63°00'N	144°32'W	2,3,4,5	a	120	Kugruk River	62QQ1	225	65°40'N	162°27'W	3,4	a,f
46	Tok Junction	43001	1650	63°18'N	143°00'W	2,3,4,5	a	121	Jago River	43UU1	550	69°42'N	143°36'W	7	h
47	Mentasta Pass	43NN1	2430	62°51'N	143°30'W	2,3,4,5	a	122	Chandalar Shelf	49TT2	3400	68°05'N	149°29'W	7	d
48	Haggard Creek	45NN1A	2540	62°42'N	145°28'W	2,3,4,5	a	123	Atigun Pass	49TT3	4900	68°08'N	149°35'W	7	d
49	Fielding Lake	45001A	3000	63°18'N	145°33'W	2,3,4,5	a	124	Oevils Canyon	49NN2a	1350	62°49'N	149°18'W	2,3,4,5	a,c
50	Ft. Creely	45005	1420	63°57'N	145°45'W	1,2,3,4,5,7	a	125	Atigun Camp	49TT4P	3400	68°10'N	149°26'W	7	a,d,f
51	Cranite Creek	45004	1240	63°57'N	145°24'W	1,2,3,4,5,7	a	126	Hess Creek	49QQ1	1000	65°46'N	149°23'W	2,3,4,5	f
52	Big Delta	45PP1	980	64°14'N	145°58'W	2,3,4,5	a	127	Isom Creek	49QQ2	1675	65°50'N	149°30'W	2,3,4,5	f
53	French Creek	46PP2MA	2010	64°43'N	146°40'W	2,3,4,5,7	a	128	Little Willow Creek	49MM12a	2100	61°59'N	149°42'W	3,4,5	a
54															

DATES * MEAS. *
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LEGEND

* Numerals refer to specific dates:

Numerals 1 = January 1
2 = February 1
3 = March 1
4 = April 1
5 = May 1
6 = June 1
7 = Special dates

** Letters refer to Agency that
secures the snow survey,

a. - Soil Conservation Service
b. - Forest Service
c. - U.S. Army Corps. of Engineers
d. - U.S. Army Cold Regions Re-
search and Engineering Lab
e. - Alaska Power Administration
f. - Bureau of Land Management
g. - U.S. Geological Survey
h. - U.S. Fish and Wildlife Service
i. - Naval Arctic Research Lab

*** Letters following the snow course
number refer to:

A. - Snow Course and Aerial Studio
Marker
o. - Aerial Studio Marker only
M. - Soil Moisture Station
P. - Precipitation Storage Gage
S. - Snow Pillow
T. - Radio Telemetered

AGENCIES AND ORGANIZATIONS COOPERATING IN ALASKA SNOW SURVEYS

CANADA

Department of Indian and Northern Affairs, Northern
Natural Resources and Environment, Yukon Territory

FEDERAL

Department of Agriculture
Forest Service
Institute of Northern Forestry
Tongass National Forest
Chugach National Forest
Soil Conservation Service

Department of Commerce
NOAA National Weather Service

Department of Defense
U.S. Army Corps of Engineers
U.S. Army Cold Regions Research and Engineering Laboratory

Department of Interior
Bureau of Land Management
Geological Survey
Alaska Power Administration
Fish and Wildlife Service

STATE

Alaska Department of Fish and Game
Alaska Department of Highways
Alaska Department of Natural Resources, Division of Parks
Alaska Association of Soil Conservation Sub-districts
Alaska Soil Conservation District
University of Alaska
Alaska Experiment Station
Geophysical Institute

MUNICIPALITIES

Municipality of Anchorage

PRIVATE

Mt. Alyeska Resort, Inc.
NANA Regional Corporation

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

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supply, hydro-electric power
generation, navigation,
mining and industry

"*The Conservation of Water begins
with the Snow Survey*"

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